AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-11. (Canceled)

12. (Currently amended) A printing system, comprising:

a printhead having plural portions each having an ink-ejecting nozzle located therein;

plural temperature sensors each associated with one of said plural portions to monitor the temperature thereof;

plural heating elements, each associated with one of said plural portions to apply heat thereto in response to a pre-warming signal; and

a controller configured to generate separate pre-warming signals for each of the plural heating elements in response to the plural temperature sensors to elevate the temperature of at least one of said plural portions to a pre-warming temperature, wherein:

the controller is configured to analyze which plural portions are required to eject ink during ~~an upcoming~~ print swath;

the controller is configured to continue to generate pre-warming signals for the required plural portions after printing of said ~~upcoming~~ print swath has begun; and

while printing said print swath, after ink ejection from one of said plural portions is ~~not~~ no longer required to complete said ~~upcoming~~ print swath, the controller is configured to cease to generate a pre-warming signal therefor[[e]].

13. (Canceled)

14. (Currently amended) A method of pre-warming a multi-color inkjet printhead ~~having~~

~~plural portions dispensing ink~~, comprising:

providing plural ink-dispensing portions in the printhead, each of the plural portions comprising a predetermined plurality of ink ejection elements all configured to eject a particular color ink having a particular dye-load;

analyzing an upcoming print swath;

determining from said analyzing which of said plural portions are a dispensing portion required to dispense ink, and which of said plural portions are a non-dispensing portion not required to dispense ink during printing of said upcoming print swath;

generating a pre-warming signal for said dispensing portion;

pre-warming said dispensing portion in response to the pre-warming signal; and

omitting generation of a pre-warming signal for said non-dispensing portion to produce no pre-warming thereof,

wherein the pre-warming signal to the dispensing portion is generated in accordance with a predefined selection criteria that specifies an event after which the pre-warming signal ceases.

15. (Canceled)

16. (Previously presented) The method of claim 14, further comprising:

monitoring the temperature of at least some of said plural portions; and

wherein said generating of said pre-warming signal and said omitting generation of a pre-warming signal are conducted in response to said monitoring.

17. (Canceled)

18. (Previously presented) The method of claim 14, further comprising:

beginning printing of a print swath; and

ceasing generation of the pre-warming signal upon said beginning.

19. (Currently amended) ~~The method of claim 14, further comprising:~~ A method of pre-warming a multi-color inkjet printhead having plural portions dispensing ink, comprising:

analyzing an upcoming print swath;

determining from said analyzing which of said plural portions are a dispensing portion required to dispense ink, and which of said plural portions are a non-dispensing portion not required to dispense ink during printing of said upcoming print swath;

generating a pre-warming signal for said dispensing portion;

pre-warming said dispensing portion in response to the pre-warming signal;

omitting generation of a pre-warming signal for said non-dispensing portion to produce no pre-warming thereof;

printing a print swath from a beginning point to an ending point;

continuing generation of the pre-warming signal after printing from the beginning point;

monitoring printing temperature of each of said plural portions during said printing; and

ceasing to generate the pre-warming signal when the printing temperature exceeds a threshold temperature before printing to the ending point.

20. (Previously presented) A method of pre-warming a multi-color inkjet printhead having plural portions dispensing ink, including first and second portions, comprising:

generating a pre-warming signal for said first portion;

pre-warming said first portion in response to the pre-warming signal;

omitting generation of a pre-warming signal for said second portion to produce no pre-warming thereof.

analyzing an upcoming print swath;

determining from said analyzing which of said plural portions are transitional portions required to dispense ink over an initial segment of said upcoming print swath, and not required to dispense ink over a final segment of said upcoming print swath; and

from said determining, continuing generation of the pre-warming signal for said transitional portions during printing of the initial segment and ceasing generation of the pre-warming signal during printing of the final segment.

21-26. (Canceled)

27. (Currently amended) A printing system, comprising:

means for ejecting ink from plural portions of an inkjet printhead;

means for heating each of said plural portions in response to a pre-warming signal;

means for generating the pre-warming signal for one of said plural portions;

means for omitting generation of the pre-warming signal for another of said plural portions;

means for determining when said one of said plural portions is required to print during an initial segment of a print swath and is not required to print during a final segment of the print swath; and

means for ceasing generation of the pre-warming signal during printing of the print swath after printing said initial segment.

28-32. (Canceled)

33. (Currently amended) A printing system, comprising:

an inkjet printhead having plural portions each having an ink-ejecting nozzle;

plural heater elements each associated with one of said plural portions to pre-warm ink dispensed by the nozzle of said associated portion in response to a pre-warming signal; and

a controller configured to

analyze an upcoming print swath to determine which of said plural portions are required to eject ink in order to print the swath in accordance with a predefined selection criteria

different from the upcoming print swath, and

supply the pre-warming signal to one or more heater elements of only the portions required to eject ink to print the swath in accordance with the predefined selection criteria wherein particular ones of the plural portions are configured to eject a particular color ink, and wherein the selection criteria specifies a subset of the particular plural portions to be used to print the swath.

34. (Currently amended) A printing system, comprising:

an inkjet printhead having plural portions each having an ink-ejecting nozzle;

plural heater elements each associated with one of said plural portions to pre-warm ink dispensed by the nozzle of said associated portion in response to a pre-warming signal; and

a controller configured to

analyze an upcoming print swath to determine which of said plural portions are required to eject ink in order to print the swath in accordance with a predefined selection criteria, and

supply the pre-warming signal to one or more heater elements of only the portions required to eject ink to print the swath in accordance with the predefined selection criteria, wherein the selection criteria specifies an event after which the controller stops supplying the pre-warming signal to the heater elements of the portions required to eject the ink to print the swath during the printing of the swath.

35-36. (Canceled)

37. (Currently amended) ~~The method of claim 14, further comprising:~~ A method of pre-warming a multi-color inkjet printhead having plural portions dispensing ink, comprising:

analyzing an upcoming print swath;

determining from said analyzing which of said plural portions are a dispensing portion

required to dispense ink, and which of said plural portions are a non-dispensing portion not required to dispense ink during printing of said upcoming print swath;

generating a pre-warming signal for said dispensing portion;

pre-warming said dispensing portion in response to the pre-warming signal;

omitting generation of a pre-warming signal for said non-dispensing portion to produce no pre-warming thereof;

beginning printing of a print swath having a plurality of segments; and

ceasing generation of the pre-warming signal for a particular dispensing portion during printing of a final segment of the print swath.

38. (Currently amended) ~~The method of claim 14, further comprising:~~ A method of pre-warming a multi-color inkjet printhead having plural portions dispensing ink, comprising:

analyzing an upcoming print swath;

determining from said analyzing which of said plural portions are a dispensing portion required to dispense ink, and which of said plural portions are a non-dispensing portion not required to dispense ink during printing of said upcoming print swath;

generating a pre-warming signal for said dispensing portion;

pre-warming said dispensing portion in response to the pre-warming signal;

omitting generation of a pre-warming signal for said non-dispensing portion to produce no pre-warming thereof;

beginning printing of a print swath; and

ceasing generation of the pre-warming signal for a particular dispensing portion during printing of the print swat after ink dispensing from the particular dispensing portion is concluded for the print swath.

39. (Previously presented) The method of claim 14, wherein the pre-warming signal is generated before beginning printing of the print swath.